

US Water
Alliance



SCIPP
A NOAA RISA TEAM



THE
Water
Research
FOUNDATION

An Equitable and Resilient Water Future: Considerations for Climate Planning

Purpose of the Workshop Series

This workshop series is designed by NOAA and the Water Research Foundation to improve its delivery of information resources for small- and medium-size water utilities useful for building their resilience to a changing climate. Each workshop is organized by NOAA's regional partners and addresses issues identified by and for each region. The workshops offer a forum for exchanging ideas to:

- Identify gaps and improve NOAA climate and weather-related tools and information resources;
- Provide timely and relevant weather and climate information and raise regional-scale awareness of NOAA tools and resources;
- Build regional connections that support small-scale utility decision making;
- Develop improved communication materials and enhance NOAA's tools for local decision making.

The Equity Dialogues

NOAA, in partnership with the US Water Alliance, convened two virtual dialogues on equity in resilience planning. The first dialogue was part of the Southern Climate Impacts Planning Program (SCIPP) workshop and was co-hosted with the Water Collaborative of Greater New Orleans. The second was a stand-alone webinar following the Great Lakes workshop, co-hosted by Sea Grant. Both workshops demonstrated the importance of community involvement and engagement throughout resilience planning processes, rather than as an add-on during the implementation of projects.

The dialogues illustrated how community representatives and water/climate professionals worked together to expand awareness, foster understanding, and create buy-in for solutions that consider historic racism and institutional inequities, while also responding to the compounding risks of climate change on low-income areas and communities of color. The dialogues included an overview of water equity, why it matters for climate resilience planning, priorities for action, and case studies in each region. Case studies were presented by community-based organizations, water utilities, and local government partners.

Workshop Dates :: Summer 2020

What is Equity in the Water Sector?

Equity refers to just and fair inclusion—a condition in which everyone has an opportunity to participate and prosper. Water equity occurs when all communities have:

Access to clean, safe, affordable water. In the US, more than 2 million people lack access to running water or sanitation. Many more experience water affordability or contamination issues. As utilities make increasing investments in infrastructure climate resilience, water affordability problems will become more acute.

Share in the economic, social, and environmental benefits of water systems. Significant investments are being made in the water sector to prepare for and respond to climate impacts. This is an opportunity to create benefits like green spaces, public parks, diverse contracting processes, and workforce development with living wage jobs.

Are resilient in the face of floods, drought, and other climate risks. Low-income people and communities of color are more vulnerable to climate impacts, more likely to live in risk areas, due to historic housing discrimination and current gentrification, and often have fewer resources to prepare for or recover from disasters.

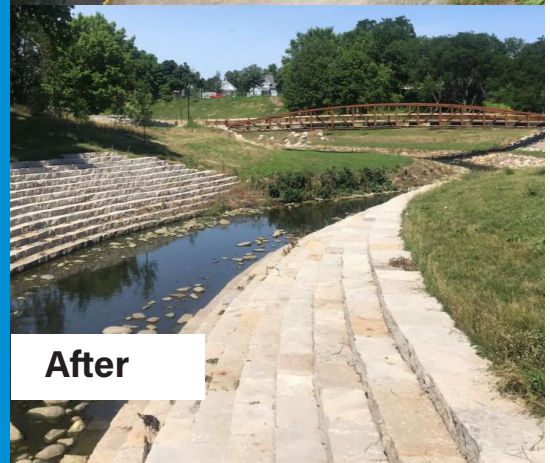
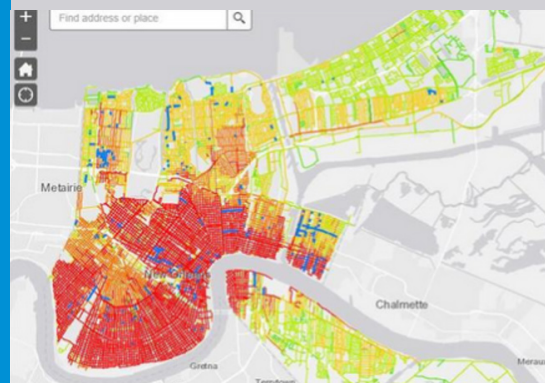
Case Studies

Water Equity in New Orleans (Jessica Dandridge, Executive Director, The Water Collaborative of Greater New Orleans). High poverty rates, old infrastructure, and threats from climate change equate to inequitable services with recurrent flooding and water service disconnection for those who can least afford it. To improve services where it is most needed, a citizen-led collaborative, NOLA Green, is working to educate the public on the causes of flooding and to involve them in Water Board representation and decision making.

Community Partnerships for Triple Bottom Line Success: Climate Resilience and Stormwater Management (Lisa Sasso, Senior Project Planner, Milwaukee Metropolitan Sewerage District; Yvonne McCaskill, Coordinator, Century City Triangle Neighborhood Association). Milwaukee experienced two devastating storms in 2008 and 2010, severely impacting the North 30th Street Century City Triangle corridor, a historically black and underserved area that had lost much of its industrial base. The city realized that the corridor offered a perfect opportunity to undertake a Triple Bottom Line revitalization that would redress infrastructure failures, improve economic opportunity, and achieve multiple social benefits for residents while also reducing greenhouse gases and building the neighborhood's resilience. Key to success was engagement with grassroots community organizations to create and implement a shared vision involving widespread installations of rain gardens, re-naturalizing a river, and constructing a multi-purpose stormwater basin.

Sustainable Cleveland (Kristin Hall, City of Cleveland Mayor's Office of Sustainability; Bianca Butts, Neighborhood Services Coordinator for Burten, Bell, Carr Development, Inc.) Cleveland is a city that puts a premium on achieving equity. More than 5,000 residents across the region have participated in racial equity workshops, and Climate Ambassadors are embedded in vulnerable neighborhoods to raise awareness of climate issues and risk mitigation measures. A vigorous outreach campaign and neighborhood workshops helped residents communicate their aspirations, assets, concerns, and priorities for climate planning, and connected them with City resources to support neighborhood projects. Together, City planners and residents build resilience while meeting community needs.

Mapping Vulnerability in New Orleans



Milwaukee Metropolitan Sewerage District
Renaturalizing a Stream: Before and After



Sustainable Cleveland
Community Rain Barrells Program

Lessons Learned

- Aging and/or failing infrastructure is often more prevalent in low-income areas and communities of color due to historic injustices such as redlining. Achieving equitable levels of service is more challenging due to lack of affordability as well as lack of funds to replace aging infrastructure.
- Mapping is not always overlaid with demographics of social vulnerability. There is a need to overlay physical science with social data to understand vulnerability and to focus work where it is most needed. Incorporating infrastructure data (age, cost, maintenance, etc.) would allow for better prioritization of areas within the city.
- Engaging trusted neighborhood residents as champions and ambassadors fosters common understanding between City and utility staff and community members, and it helps connect communities to resources for project funding and affordability.
- Successful cross-sector equitable partnerships succeed when:
 1. Partners speak a common language. Community members respond when they understand the impact of their behaviors on the environment. Water and climate professionals implement better resilient strategies when they understand community impacts and needs.
 2. The utility and the community work together. If community members feel ownership of the project, they take pride in it, which is important for long-term maintenance (e.g., green infrastructure).
 3. Community members have trusted relationships with the utilities. Relationships are a two-way street: they help planners and engineers understand what the community wants and needs, and they give community members a window into water infrastructure and climate issues—as well as greater awareness of water careers.
- Adopting a community-based approach while evaluating climate adaptation options leads to more successful projects that benefit all residents and achieve triple bottom line benefits for social, economic, and environmental resilience.

Water Rising: Equitable Approaches to Urban Flooding, USWA

Five Priority Actions Water and Climate Professionals Can Take

Priority Action #1:
Use data to identify risks, assets, and community vulnerabilities.

Priority Action #2:
Commit to ongoing and meaningful community engagement.

Priority Action #3:
Set a proactive vision and build strategic alignment.

Priority Action #4:
Fully incorporate equity into resilience planning processes.

Priority Action #5:
Target investments in vulnerable communities.



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1. Geographic and climate risk do not fully capture how well a particular community can prepare for, respond to, or bounce forward from an extreme event. Planners need to coordinate with organizations to connect and cross tab information on demographics.
2. Unintended consequences should be prevented upfront by involving communities for collective understanding of risks and impacts, and by co-designing solutions with community members.
3. \$1 in investment saves \$6 in costs—leverage opportunities across boundaries (staffing, materials, outreach). Vision and strategic alignment create a stronger pitch for grants etc. for pre-disaster mitigation.
4. Strategies grounded in community solutions and shared decision making improves outcomes.
5. Creating targeted funds for infrastructure spending and projects and setting benchmarks helps include vulnerable communities.

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› [NOAA Workshop Series Website](#)



› [US Water Alliance Website](#)

Equity Resources:

- › [Water Rising: Equitable Approaches to Urban Flooding](#)
- › [Taking Steps Together on Equity and Climate Change: A Plan By and For New Orleans](#)
- › [An Equitable Water Future: Milwaukee](#)
- › [2019 Resilience Plan for Milwaukee](#)
- › [An Equitable Water Future: Cleveland](#)
- › [Cleveland Climate Action Plan](#)
- › [An Equitable Water Future: Opportunities for the Great Lakes](#)
- › [Cleveland Racial Equity Tool](#)
- › [National Green Infrastructure Certification Program](#)

Information Needs



Diversity, equity, inclusion, and anti-racist trainings.

Water and climate professionals are trained in technical topics and management practices, however, participants identified a need to continue learning about equity and practical trainings in order to break down institutional and systemic barriers to equitable resilience planning.



Peer-to-peer exchanges.

Cross-sector partnerships are needed to effectively address the compounding impacts of climate change on vulnerable communities. Participants asked for further opportunities to learn from their counterparts in other cities about what's working and what's not, how to build a shared understanding and communicate with populations they serve.



Capacity Building and Communication.

Equity involves intersecting issues that show up differently in different communities. Participants expressed a need to engage in further discussion to better understand how inequities are emerging in their areas, what it means for their work, and how to move forward in more equitable planning practices.

Next Steps

Integrating climate and water planning through an equity lens is a new area for many water professionals. Following these workshops, the US Water Alliance is advancing water equity and climate planning through several initiatives. In September 2020, the Alliance launched the [Water Equity Network](#), a nationwide community of practice in which participating water agencies and City Learning Teams collaborate to advance equitable water management practices at the local, state, and national levels. Milwaukee, Cleveland, and others are part of this network, and the Alliance will continue to leverage partnerships and information from NOAA and other climate professionals into this work.

In October 2020, the Alliance also launched the [Water, Arts, and Culture Accelerator](#), in which five cities will establish municipal water and local artist partnerships to collaborate on climate-related challenges facing their communities. Lessons from these workshops will be incorporated into the Accelerator, expanding the intersection of the use of climate data, water management, and community engagement.

Organized by

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<https://cpo.noaa.gov/Meet-the-Divisions/Climate-and-Societal-Interactions/Water-Resources>